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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

MAILED

Application Number: 09/838,970
Filing Date: April 20, 2001
Appellant(s): BLANKENSHIP ET AL.

JUN 06 2007

GROUP 3600

Himanshu S. Amin
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed November 20, 2006 appealing from the Final Office action mailed February 3, 2006.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

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(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,184,179	Tarr et al.	2-1993
6,681,349 B2	Sekizawa	1-2004
6,405,178 B1	Manchala et al.	6-2002

B.J. Bennett "Using a microcomputer in costing and selling", Computer technology in welding, June 1986 (pages 341-346) ("Bennett")

Dialog File 148 "Retrospective", American Machinist, Jan. 2000

Official Notice

Microsoft Press Dictionary

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(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 101

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 37-44 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Referring to claim 38: This claim is directed to a “system” for managing welding consumables. The system has three parts: (1) a consumable monitor “component”, (2) a customer “component”, and (3) a supplier “component.” The Applicants’ specification defines a “component” as follows:

“A ‘component’ is a computer-related entity, either hardware, a combination of hardware and software, software, or software in execution. For example, a component may be, but is not limited being, a process running on a processor, a processor, an object, an executable, a thread of execution, a program and a computer. By way of illustration, both an application running on a server and the server can be components.” (see page 5, lines 15-20).

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Thus the Applicants' specification teaches that a "component" can be construed as a program (i.e. software). Therefore, the "system" of claim 38 comprises three programs. The Examiner notes that a program or software is nothing more than a series of instructions to perform an action (i.e. an algorithm) (see Microsoft Press Dictionary). Hence, the Applicants' "system" can be construed as comprising three algorithms. None of these "components" recite anything physical to constitute a "system" (i.e. an apparatus) (see MPEP 2106.01(I)).

Referring to claims 37, 43, and 44: Claims 37, 43, and 44 are rejected under the same rationale as set forth above in claim 38.

Referring to claims 39-42: Claims 39-42 are dependent on claim 38. However, these claims fails to correct the deficiency of claim 38 and are rejected under the same rationale as set forth above in claim 38.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 37-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 38: Claim 38 is directed to a "system". However, as noted above in the 101 analysis, Applicants' invention can be construed as comprising three

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algorithms. It is unclear to the Examiner how three algorithms can constitute a "system" (i.e. apparatus) since an algorithm has no physical structure.

Referring to claims 37, 43, and 44: Claims 37, 43, and 44 are rejected under the same rationale as set forth above in claim 38.

Referring to claims 39-42: Claims 39-42 are dependent on claim 38. However, these claims fail to correct the deficiency of claim 38 and are rejected under the same rationale as set forth above in claim 38.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-9, 12, 15, 16, 21-23, 25-27, 32, 33, 35, 37, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over B.J. Bennett "Using a microcomputer is costing and selling" (hereafter referred to as Bennett) in view of Dialog File 148 "Retrospective" (hereafter referred to as Dialog).

Referring to claim 1: Bennett discloses a system for managing welding consumables, comprising:

- a welder comprising a consumable monitor that transmits welding consumable information (Abstract: "The machine may be used to directly measure and compare costs of any welding processes by connecting it to various sensors which monitor the weld as it is produced."; page 342, lines 22-26: "...certain parameters such as welding current, arc voltage and wire usage rate are monitored by appropriate transducers and the signals relayed to an approved

instrument box”; page 343, lines 40-46; page 342, lines 25 and 26: “...the signals relayed to an approved instrument box.”);

- a remote system that interfaces to the welder, the remote system facilitates management of welding consumables for the welder based at least in part upon information received from the consumable monitor (page 341, line 38 – page 342, line 1; page 342, lines 41-47; page 343, lines 36-46).

Bennett does not expressly disclose that the remote system interfaces to the welder *via a computer network*. However, Bennett discloses that a transducer relays signals to an instrument box (page 342, lines 22-26). Furthermore, Dialog discloses remotely monitoring the quality of a weld via the Internet (page 1). Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Dialog into the invention of Bennett. One of ordinary skill in the art would have been motivated to do so in order to remotely monitor the status of a weld as taught by Dialog.

Referring to claim 2: Bennett and Dialog teach or suggest all of the limitations of claim 1 as noted above. Furthermore, Bennett discloses that the remote system facilitates ordering and/or purchasing of a consumable based at least in part upon information received from the consumable monitor (page 341, line 38 – page 342, line 1). Bennett discloses that one of the benefits of his invention is to “...enable the welding engineer to present a clear case to purchasing department with regard to the purchase of say helium/argon mixtures...”

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Referring to claim 3: The cited prior art teaches or suggests all of the limitations of claim 2 as noted above. Furthermore, Bennett discloses that the consumable is a wire and a gas (page 342, lines 22-26; page 343, lines 15-46).

Referring to claims 4, 5, and 9: The cited prior art teaches or suggests all of the limitations of claims 3 and 1 as noted above. The cited prior art does not teach the particular use of the consumables as noted in claims 4 and 5, or that the welder is leased to the customer as noted in claim 9. However, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963). In the present case, the cited prior art is capable of performing the intended use of the consumables and lease agreement because the cited prior art has the same structure as the claim invention and because the prior art is directed to the same field of invention (i.e., monitoring a welder having consumables). Thus the limitations of claims 4, 5, and 9 do not patentably distinguish the structure of the claimed invention from the prior art.

Referring to claims 6-8: The cited prior art teaches or suggests all of the limitations of claim 2 as noted above. The cited prior art does not teach that the ordering and/or purchasing of the consumable is based on a customer ordering model,

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a vendor managed replenishment contract, or the nature of the ownership of the consumable. However, the Examiner notes that these limitations are not functionally involved in the elements of the recited system. Therefore these limitations are deemed to be nonfunctional descriptive material. The elements of the system would be the same regardless of any contract or ownership of the consumable. The differences between the Applicants' invention and the prior art are merely subjective. Thus this nonfunctional descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994) also see MPEP 2106. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have any contract or ownership model in the cited prior art because such information does not functionally or structurally relate to the elements of the claimed system and because the subjective interpretation of such information does not patentably distinguish the claimed invention.

Referring to claims 12 and 15: The cited prior art teaches or suggests all of the limitations of claim 1 as noted above. Furthermore, Dialog teaches that the network employs TCP/IP (page 1) and the Internet (page 1). Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Dialog into the invention of Bennett. One of ordinary skill in the art would have been motivated to do so in order to remotely monitor the status of a weld via the Internet as taught by Dialog.

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Referring to claim 16: The cited prior art teaches or suggests all of the limitations of claim 1 as noted above. Furthermore, Bennett teaches an arc quality monitor providing information regarding the weld quality to the remote system (page 342, lines 22-26).

Referring to claims 21-23, 25-27, 32, 33, 35 and 37: Claims 21-23, 25-27, 32, 33, 35, and 37 are rejected under the same rationale as set forth above in claims 1, 3-5, 12, 15, 16.

Referring to claim 54: Claim 54 is rejected under the same rationale as set forth above in claim 1.

Claims 10, 11, 17-19, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over B.J. Bennett "Using a microcomputer is costing and selling" (hereafter referred to as Bennett) in view of Dialog File 148 "Retrospective" (hereafter referred to as Dialog) and further in view of Tarr et al. (US 5,184,179) (hereafter referred to as Tarr).

Referring to claims 10 and 11: The cited prior art teaches or suggests all of the limitations of claim 1 as noted above. The cited prior art does not teach that the remote system enforces an agreement or contract or that the customer is invoiced by the system for consumables based on information received from the monitor. However, Tarr discloses a remote monitoring system (Figure 3, items "60" and "40") that that invoices a customer (Figure 1, item "36"; Figure 3, item "54") and provides service contract information (col. 3, lines 12-49). Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the

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teachings of Tarr into the cited prior art. One of ordinary skill in the art would have been motivated to do so in order to allow appropriate personnel to provide the appropriate service requirement and maintain accurate billing records as taught by Tarr (col. 3, lines 40-47).

Referring to claim 17: The cited prior art teaches or suggests all of the limitations of claim 1 as noted above. The cited prior art does not teach that a customer is invoiced by the system for consumables based on weld quality information received from the monitor. However, Tarr discloses a remote monitoring system (Figure 3, items "60" and "40") that that invoices a customer (Figure 1, item "36"; Figure 3, item "54"). Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Tarr into the cited prior art. One of ordinary skill in the art would have been motivated to do so in order to maintain accurate billing records as taught by Tarr (col. 3, lines 40-47). Tarr does not teach that the invoice is based on weld quality. However, the Examiner notes that this limitation is not functionally or structurally involved in the elements of the recited system. Therefore this limitation is deemed to be nonfunctional descriptive material. The elements of the recited system would be the same regardless of what information the invoice was based on. The difference between the content of the Applicants' invoice and the prior art is merely subjective. Thus this nonfunctional descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994) also see MPEP 2106. Therefore, it would have been

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obvious to a person of ordinary skill in the art at the time the invention was made to base the invoice of the prior art on any information because such information does not functionally or structurally relate to the elements of the claimed system and because the subjective interpretation of information does not patentably distinguish the claimed invention.

Referring to claim 18: The cited prior art teaches or suggests all of the limitations of claim 17 as noted above. Furthermore, Bennett discloses that the remote system tracks patterns of usage of welding consumables (page 342, lines 22-26; "...wire usage rate are monitored...")

Referring to claim 19: The cited prior art teaches or suggests all of the limitations of claim 17 as noted above. The cited prior art does not teach the particular use of the remote system as noted in claim 19. However, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963). In the present case, the cited prior art is capable of performing the intended use because the cited prior art has the same structure as the claim invention and because the prior art is directed to the same field of invention (i.e., monitoring a

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welder having consumables). Thus the limitation of claim 19 does not patentably distinguish the structure of the claimed invention from the prior art.

Referring to claim 36: Claim 36 is rejected under the same rationale as set forth above in claim 17.

Claims 13, 14, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over B.J. Bennett "Using a microcomputer is costing and selling" (hereafter referred to as Bennett) in view of Dialog File 148 "Retrospective" (hereafter referred to as Dialog) and further in view of Official Notice.

Referring to claim 13: The cited prior art teaches or suggests all of the limitations of claim 1 as noted above. The cited prior art does not teach that information is exchanged between the welder and the remote system using at least one of HTML, SHTML, VB Script, JAVA, CGI Script, dynamic HTML, ASP, ActiveX, XML, PDF, EDI, and WML format. However, Official Notice is taken that it is old and well known in the art to use HTML format to exchange information. Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate HTML into the cited prior art. One of ordinary skill in the art would have been motivated to do so in order to present data in a user-friendly format.

Referring to claim 14: The cited prior art teaches or suggests all of the limitations of claim 1 as noted above. The cited prior art does not teach a LAN connection. However, Official Notice is taken that it is old and well known in the art to use a LAN connection to connect two or more devices. Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate a LAN

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connection in the cited prior art. One of ordinary skill in the art would have been motivated to do so in order to allow two or more remote devices to communicate via a common network.

Referring to claim 34: Claim 34 is rejected under the same rationale as set forth above in claim 13.

Claims 20 and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over B.J. Bennett "Using a microcomputer is costing and selling" (hereafter referred to as Bennett) in view of Dialog File 148 "Retrospective" (hereafter referred to as Dialog) and further in view of Sekizawa (US 6,681,349 B2).

Referring to claim 20: The cited prior art teaches or suggests all of the limitations of claim 1 as noted above. The cited prior art does not teach that the remote system performs resource or forecast planning. However, Sekizawa discloses a remote monitoring system that performs resource and forecast planning (col. 46, lines 15-40). Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Sekizawa into the cited prior art. One of ordinary skill in the art would have been motivated to do so in order to set up a yearly plan of manufacturing for the consumables as taught by Sekizawa (col. 46, lines 35-40).

Referring to claims 28-31: Claims 28-31 are rejected under the same rationale as set forth above in claim 20.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over B.J. Bennett "Using a microcomputer is costing and selling" (hereafter referred to as

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Bennett) in view of Dialog File 148 “Retrospective” (hereafter referred to as Dialog) and further in view of Manchala et al. (US 6,405,178 B1) (hereafter referred to as Manchala).

Referring to claim 24: The cited prior art teaches or suggests all of the limitations of claim 22 as noted above. The cited prior art does not teach initiating an order based at least in part upon information received from the consumable monitor. However, Manchala discloses this limitation (col. 2, lines 31-53). Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Manchala into the invention of Bennett. One of ordinary skill in the art would have been motivated to do so in order to take into account the changes in price of the consumable as taught by Manchala (col. 1, lines 16-20; col. 3, lines 15-25; col. 4, lines 47-59).

Claim 38 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over B.J. Bennett “Using a microcomputer is costing and selling” (hereafter referred to as Bennett).

Referring to claim 38: Bennett discloses a system for managing welding consumables, comprising:

- a consumable monitor that monitors consumable usage and/or consumable status of a welder (Abstract: “The machine may be used to directly measure and compare costs of any welding processes by connecting it to various sensors which monitor the weld as it is produced.”; page 342, lines 22-26: “...*certain parameters such as welding current, arc voltage and wire usage rate are*

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monitored by appropriate transducers and the signals relayed to an approved instrument box"; page 343, lines 40-46);

- a component to that interfaces the consumable monitor facilitate welding resource management based at least in part upon information regarding consumable usage received from the consumable monitor component (page 341, line 32 – page 342, line 1: "*...a serious study of all welding cost aspects is essential to obtain bottom line costs for the finished weld... This will enable the welding engineer to present a clear case to purchasing department with regard to the purchase of say helium/argon mixtures...*"; page 342, lines 41-47: "*The second phase was the construction of suitable hardware and software so that the same machine could be used to monitor the weld process semi-automatically and so produce costing information.*" ; page 343, lines 36-46);
- a component that receives information and facilitates purchasing of welding consumables (page 341, line 38 – page 342, line 1).

Bennett does not disclose that the second and third components are "customer" and "supplier" components respectively. However, the Examiner notes that these limitations are not functionally involved in the elements of the recited system. Therefore these limitations are deemed to be nonfunctional descriptive material. The elements of the recited system would be the same regardless of what names were given to the components. The difference between the Applicants' invention and the prior art are merely subjective. Thus this nonfunctional descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32

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USPQ2d 1031 (Fed. Cir. 1994) also see MPEP 2106. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to give the components in Bennett's system any name because such information does not functionally or structurally relate to the elements of the claimed system and because the subjective interpretation of information does not patentably distinguish the claimed invention.

Referring to claim 40: The cited prior art teaches or suggests all of the limitations of claim 38 as noted above. Furthermore, Bennett discloses that the consumable is a wire and a gas (page 342, lines 22-26; page 343, lines 15-46).

Referring to claims 41 and 42: The cited prior art teaches or suggests all of the limitations of claim 40 as noted above. The cited prior art does not teach the particular use of the consumables as noted in claims 41 and 42. However, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963). In the present case, the cited prior art is capable of performing the intended use of the consumables because the cited prior art has the same structure as the claim invention and because the prior art is directed to the same field of invention (i.e., monitoring a welder having consumables). Thus the

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limitations of claims 41 and 42 do not patentably distinguish the structure of the claimed invention from the prior art.

Claims 39, 43, 45, 46, 48-53, and 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over B.J. Bennett "Using a microcomputer is costing and selling" (hereafter referred to as Bennett) in view of Manchala et al. (US 6,405,178 B1) (hereafter referred to as Manchala).

Referring to claim 39: Bennett teaches or suggests all of the limitations of claim 38 as noted above. Bennett does not disclose at least one of a production control component, a financial accounting component and a materials management component. However, Manchala discloses this limitation (col. 3, lines 26-30). Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Manchala into the system of Bennett. One of ordinary skill in the art would have been motivated to do so in order to automate the material handling process as taught by Manchala.

Referring to claim 43: Bennett discloses a system for managing welding consumables comprising:

- a consumable monitor component that monitors consumable usage of a welder (Abstract: "The machine may be used to directly measure and compare costs of any welding processes by connecting it to various sensors which monitor the weld as it is produced."; page 342, lines 22-26: "...certain parameters such as welding current, arc voltage and wire usage rate are monitored by appropriate transducers and the signals relayed to an approved instrument box"; page 343, lines 40-46);

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- an aggregation component for aggregating consumable usage that receives welding information from the consumable monitor (page 342, lines 22-28; Figure 1);
- a component that receives consumable information to facilitate purchasing of welding consumables (page 341, line 38 – page 342, line 1; page 342, lines 41-47; page 343, lines 36-46).

Bennett does not disclose that the component that facilitates purchasing is a “supplier” component. However, the Examiner notes that this limitation is not functionally involved in the elements of the recited system. Therefore this limitation is deemed to be nonfunctional descriptive material. The elements of the recited system would be the same regardless of the name given to the component. The difference between the Applicants’ invention and the prior art is merely subjective. Thus this nonfunctional descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994) also see MPEP 2106. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to give the components in Bennett’s system any name because such information does not functionally or structurally relate to the elements of the claimed system and because the subjective interpretation of information does not patentably distinguish the claimed invention. Bennett does not disclose an inventory replenishment component that receives information from the aggregation component. However, Manchala teaches this limitation (col. 3, lines 26-30). Bennett does not

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disclose a procurement management component that determines whether to initiate reordering of the consumable based at least in part on inventory data and information associated with a vendor managed replenishment contract. However, Manchala discloses this limitation (col.3 lines 31-53; col. 4, lines 50-62). Bennett does not disclose a reorder proposal component for generating a reorder proposal once the procurement management component has initiated reordering of the consumable. However, Manchala discloses this limitation (col. 4, lines 26-34). Bennett does not disclose an authorization component that receives authorization for the reorder proposal received from the reorder proposal component. However, Manchala discloses this limitation (col. 4, lines 22-25, lines 62-66). Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Manchala into the system of Bennett. One of ordinary skill in the art would have been motivated to do so in order to take into account the changes in price of the consumable as taught by Manchala (col. 1, lines 16-20; col. 3, lines 15-25; col. 4, lines 47-59).

Referring to claim 45: Bennett discloses a method for managing welding consumables comprising: receiving information from a consumables monitor regarding consumable usage of a welder (Abstract: "The machine may be used to directly measure and compare costs of any welding processes by connecting it to various sensors which monitor the weld as it is produced."; page 342, lines 22-26: "...certain parameters such as welding current, arc voltage and wire usage rate are monitored by appropriate transducers and the signals relayed to an approved instrument box"; page 343, lines 40-46). Bennett does not disclose that the information is received from a computer network. However, Manchala

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discloses this limitation (col. 2, lines 41-44). Bennett does not disclose determining whether supply of a welding consumable has fallen below ordering threshold. However, Manchala discloses this limitation (col. 3, lines 31-36; col. 4, lines 16-22). Bennett does not disclose ordering the welding consumable based at least in part upon the information received regarding the consumable usage. However, Manchala discloses ordering a consumable for a device (col. 2, lines 31-53). Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Manchala into the invention of Bennett. One of ordinary skill in the art would have been motivated to do so in order to take into account the changes in price of the consumable as taught by Manchala (col. 1, lines 16-20; col. 3, lines 15-25; col. 4, lines 47-59).

Referring to claim 46: Bennett further discloses aggregating information regarding the consumable usage (page 342, lines 22-28).

Referring to claims 48-53: Claims 48-53 are rejected under the same rationale as set forth above in claims 43, 45, and 46.

Referring to claim 55: Bennett discloses a computer-readable medium having computer-executable instructions for executing at least a portion of the method of claim 45 (page 342, line 41 – page 345).

Referring to claims 56 and 57: Claims 56 and 57 are rejected under the same rationale as set forth above in claim 55.

Claim 44 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over B.J. Bennett “Using a microcomputer is costing and selling” (hereafter

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referred to as Bennett) in view of Manchala et al. (US 6,405,178 B1) (hereafter referred to as Manchala) in view of Official Notice.

Referring to claim 44: The cited prior art teaches or suggests all of the limitations of claim 43 as noted above. The cited prior art does not teach that the reorder is transmitted via EDI or XML. However, Official Notice is taken that it is old and well known in the art to use EDI to transmit and order. Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate this feature into the cited prior art. One of ordinary skill in the art would have been motivated to do so in order to use a well-known communication system for placing an order.

Referring to claim 47: The cited prior art teaches or suggests all of the limitations of claim 45 as noted above. The cited prior art does not teach aggregating information regarding the consumable ordering. However, Official Notice is taken that it is old and well known in the art to aggregate orders. Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to aggregate the orders in the invention of the cited prior art. One of ordinary skill in the art would have been motivated to do so in order to negotiate a better price for the consumables through bulk ordering.

(10) Response to Argument

Referring to the rejection of claims 37-44 under 35 U.S.C. §101 and §112, the Appellant argues that there is no requirement for “machines”, “systems”, or their components to be structural or physical components (see Brief page 8). The examiner respectfully disagrees and directs the Board’s attention to the Appellants’ specification (page 5, lines 15-20). The Applicants’ specification defines the term “component” as follows:

“A ‘component’ is a computer-related entity, either hardware, a combination of hardware and software, software, or software in execution. For example, a component may be, but is not limited being, a process running on a processor, a processor, an object, an executable, a thread of execution, a program and a computer. By way of illustration, both an application running on a server and the server can be components.” (see page 5, lines 15-20).

Thus the Applicants’ specification teaches that a “component” can be construed as a program (i.e. software). The examiner noted that a program or software is nothing more than a series of instructions to perform an action (i.e. an algorithm) and cited Microsoft Press Dictionary to support this point. MPEP 2106.01(I) clearly describes the nature of functional descriptive material with regards to computer-related inventions and states the following:

"Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical 'things.' They are neither computer components nor statutory processes, as they are not 'acts' being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Accordingly, it is important to distinguish claims that define descriptive material per se from claims that define statutory inventions.

Computer programs are often recited as part of a claim. USPTO personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory irrespective of the fact that a computer program is included in the claim. The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program. Only when the claimed invention taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is it descriptive material per se and hence nonstatutory.

Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process and USPTO personnel should treat a claim for a computer program, without the computer-readable medium needed to realize the computer program's functionality, as nonstatutory functional descriptive material."

In the present case, claims 37-44 describe nothing more than a series of components (i.e. programs) that are not physical and do not define any structural or functional interrelationship between the "system" and the programs. The Appellant argues that software alone qualifies as an invention and cites *Eolas Techs, Inc. v. Microsoft Corp.* ("Eolas") to support this rationale (see Brief page 8). The examiner respectfully

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disagrees with this interpretation of Eolas. The portion of Eolas cited by the Applicants was in reference to "A computer program product for use in a system..." (i.e. article of manufacture). The Federal Circuit held that software code alone qualifies as invention under processes (i.e. method claim) and under an article of manufacture claim when embodied on a computer readable medium (i.e. disk). In the present case, the Applicants have claimed a "system" (i.e. apparatus) comprising nothing more than computer code. Thus the fact pattern of Eolas does not fit the fact pattern of claims 37-44 because they are directed to a different statutory class of invention. For these reasons, the examiner requests the Board to maintain the rejection of these claims under 35 U.S.C. §101.

Referring to the rejection of claims 1-9, 12, 15, 16, 21-23, 25-27, 32, 33, 35, 37, and 54 under 35 U.S.C. §103(a), the Appellant argues that Bennett's Parameter Box does not interface to the welder but rather to the transducer (see Brief page 11, lines 18-27). The examiner respectfully disagrees and notes that the transducer disclosed by Bennett is part of the welder since it must be attached to the welder otherwise it would not be able to collect information such as welding current, arc voltage, and wire usage rate (see Bennett page 342, lines 22-28). Thus, Bennett more than satisfies the limitation "*a remote system that interfaces to the welder...*" Moreover, the examiner notes that the complete limitation for claim 1 recites, "*a remote system that interfaces to the welder via a computer network...*" Therefore, it is inherent in the claimed invention that the welder must have some sort of device (e.g. a transducer) attached to it in order

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to allow the welder to capture and communicate its data to the remote system because a welding gun alone does not have this ability.

The Appellant also argues that the references do not teach the limitation "... *via a computer network*..." (see Brief page 11, line 28 – page 12, line 6), that the references are non-enabling (see Brief page 12, lines 7-17), and that the examiner has used hindsight reconstruction in the rejection (See Brief page 12, line 18 – page 13, line 2). The examiner respectfully disagrees with all of these arguments.

In rejecting the limitation "... *via a computer network*..." in claim 1, the examiner noted that Bennett does not teach interfacing to the welder via a computer network. However, the examiner noted that Bennett teaches relaying signals from the transducer to the instrument box (page 342, lines 22-26). Bennett also discloses some sort of on line monitoring of welding costs (page 342, lines 7-9). Thus, one of ordinary skill in the art would recognize that there is some form of data transmission in the disclosure of Bennett. The examiner then cited the Dialog reference to show transmitting welding data via a computer network (i.e. Internet) and provided a proper motivation for the combination. The Appellant argues that Dialog is a non-enabling reference (see Brief page 12, lines 7-17) but fails to provide any evidence to support this position. The examiner notes that communicating any type of electronic data via the Internet is well known in the art. Furthermore, the Federal Circuit has stated the following:

"Even if a reference discloses an inoperative device, it is prior art for all that it teaches." Beckman Instruments v. LKB Produkter AB, 892 F.2d 1547, 1551, 13 USPQ2d 1301, 1304 (Fed. Cir. 1989). Therefore, "a non-enabling reference may qualify as prior art for the purpose of determining obviousness under 35 U.S.C. 103." Symbol Techs. Inc. v. Opticon Inc.,

935 F.2d 1569, 1578, 19 USPQ2d 1241, 1247 (Fed. Cir. 1991) (see MPEP 2121.01(II)).

The Appellant then argues that the examiner has used hindsight reconstruction in combining Dialog with Bennett because Dialog is directed to monitoring the quality of welds whereas Bennett is directed to costing analysis of welding consumables (See Brief page 12, line 18 – page 13, line 2). The examiner respectfully disagrees and notes that Bennett mentions “quality control” in the Abstract (pages 341, lines 14 and 15). Moreover, the examiner notes that inadequate amounts of welding consumables can contribute to welding flaws (i.e. poor quality welds). To support this point, the examiner cites the reference “*A Real Time Approach to Quality Control in Welding*” by Blackmon et al. (“Blackmon”). Blackmon teaches that a variety of factors such as current, voltage, and welding consumables can contribute to the formation of welding flaws (page 37). Bennett, on the other hand, teaches monitoring factors such as current, voltage, and wire consumed for costing and quality control (page 342, lines 40-45). Thus, one of ordinary skill in the art would recognize that Bennett and Dialog are analogous art.

Finally, the Appellant has argued that the Parameter Box of Bennett does not “...facilitate management of welding consumable(s)...”(see Brief page 13, lines 3-17). The examiner respectfully disagrees and notes that the key term in this limitation is “facilitates”. The language of claim 1 does not say that the remote system does the actual management of the consumables (e.g. ordering additional consumables) but rather that it only “facilitates” the management of the consumables. The examiner took

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the broadest reasonable interpretation of this limitation and concluded that Bennett's disclosure reads on this limitation. Bennett discloses that the Parameter Box is used to make purchasing decisions. Bennett teaches the following:

*"The small, battery driven, portable microcomputer is an inexpensive tool for both the sales and welding engineers. **It can be used for the costing of welding processes and the generation of proposals.** The machine may be used to directly measure and compare costs of any welding processes by connecting it to various sensors which monitor the weld as it is produced."*
(Abstract, page 341, lines 2-6) (emphasis added);

*"The use of the Computer to improve productivity is not limited to a production or shop floor environment. It can be used as a tool to improve sales productivity and reduce the amount of time devoted by decision makers in industry in deciding whether to change shielding gas composition or process. **The key to decisions is nearly always the final figure on the bottom line.**"* (page 341, lines 18-22)(emphasis added).

*"**This will enable the welding engineer to present a clear case to purchasing department with regard to the purchase of say helium/argon mixtures which per cylinder are more expensive.**"* (page 341, line 38 – page 342, line 1)(emphasis added).

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Thus Bennett discloses that the Parameter Box is used for making business decisions regarding the purchase of different types welding consumables and for generating proposals. The examiner interprets this as reading on the limitation of facilitating management of welding consumable because the Parameter Box is assisting someone else in managing (i.e. purchasing) the welding consumables.

Regarding the Appellants' argument that Bennett is non-enabling (see Brief page 13, lines 18-31), the examiner notes that this argument has already been discussed above with respect to the Dialog reference and a similar rationale applies here.

Referring to claims 2 and 37, the Appellant argues that Bennett does not teach the limitation "...remote system facilitates ordering and/or purchasing of a consumable based at least in part upon information received from the consumable(s) monitor." The examiner respectfully disagrees and notes that this argument has already been discussed above with respect to claim 1 and a similar rationale applies here.

Referring to claims 10, 11, 17-19, and 36, the examiner notes that the Appellants' arguments have already been discussed above with respect to claim 1 and a similar rationale applies here.

Referring to claims 13, 14, and 34, the Appellant argues that because Bennett discloses an RS232 interface there is no need for a more sophisticated interface (e.g. HTML) (see Brief page 16, lines 7-19). The examiner respectfully disagrees. Bennett discloses "on line motoring" (page 342, lines 7-9). Moreover, Dialog discloses an Internet interface.

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Referring to claims 20 and 28-31, the examiner notes that the Appellants' arguments have already been discussed above with respect to claim 1 and a similar rationale applies here.

Referring to claims 38 and 40-42, the examiner notes that the Appellants' arguments have already been discussed above with respect to claim 1 and a similar rationale applies here.

Referring to claims 39, 43, 45, 46, 48-53, and 55-57, the Appellant argues that Manchala is non-analogous art and therefore there is no motivation to combine (see Brief page 19, lines 1-11). The examiner respectfully disagrees and notes that both Bennett and Manchala are directed to monitoring and managing consumables of a device. Thus, both Bennett and Manchala are reasonably pertinent to the problem with which the inventor was concerned. Moreover, both references are in the same field of the Appellants' endeavor, and both references address the same problem.

Referring to claims 45, 46, 48-53, and 55-57, the Appellant argues that the combination of Bennett and Manchala do not teach the limitations of the claims. The examiner respectfully disagrees and notes that the combined references teach all the limitations as noted in the Final Office Action. The Appellant provides no arguments explaining why the examiner's rejection is improper. All the limitations have been addressed and the examiner provided a proper motivation for the combination. Bennett and Manchala are directed to monitoring and managing consumables of a device. Thus, both Bennett and Manchala are reasonably pertinent to the problem with which

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with the inventor was concerned. Moreover, both references are in the same field of the Appellants' endeavor, and both references address the same problem.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

**NAEEM HAQ
PRIMARY EXAMINER**



Naeem Haq

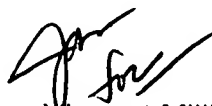
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